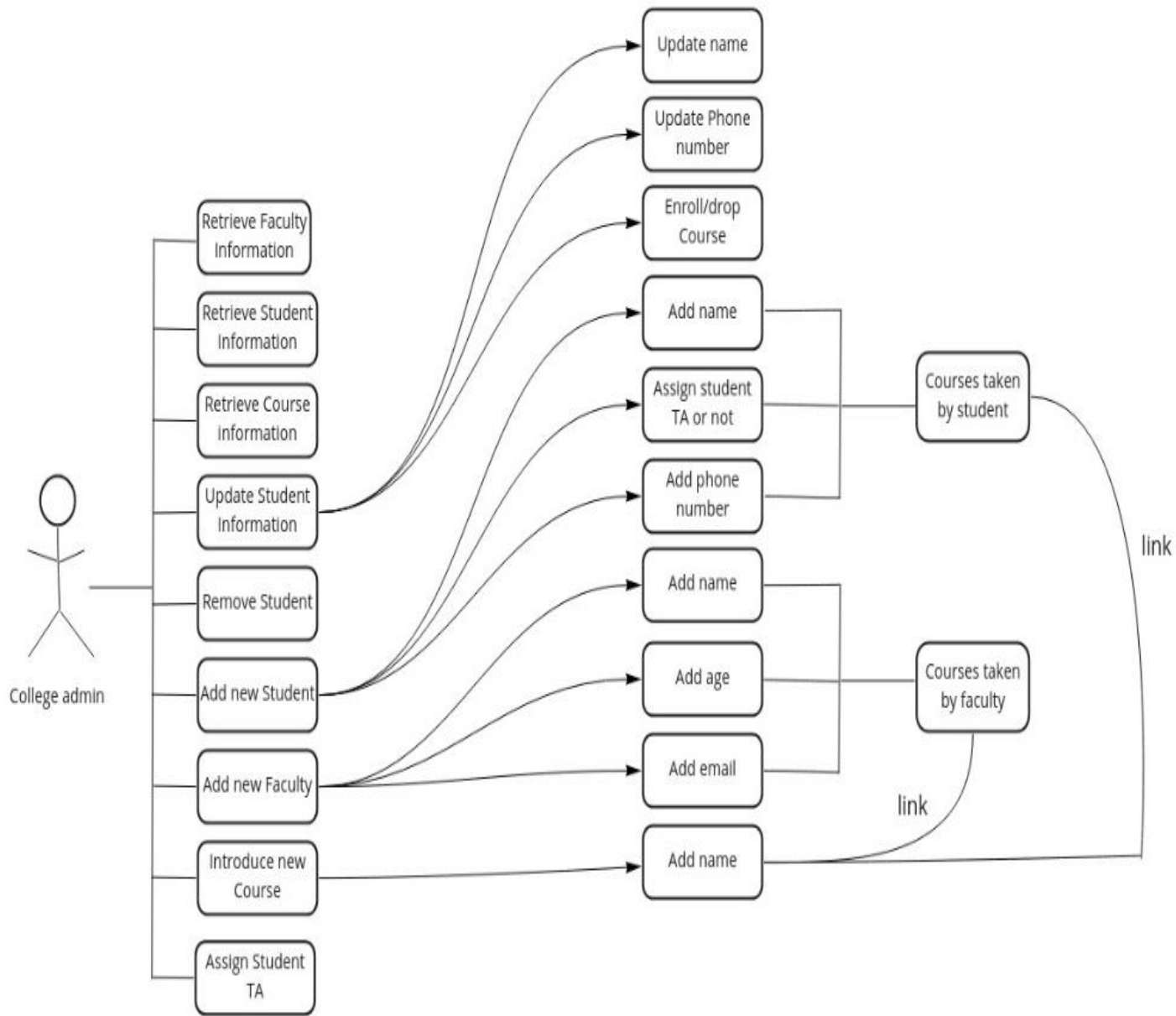


Project Report

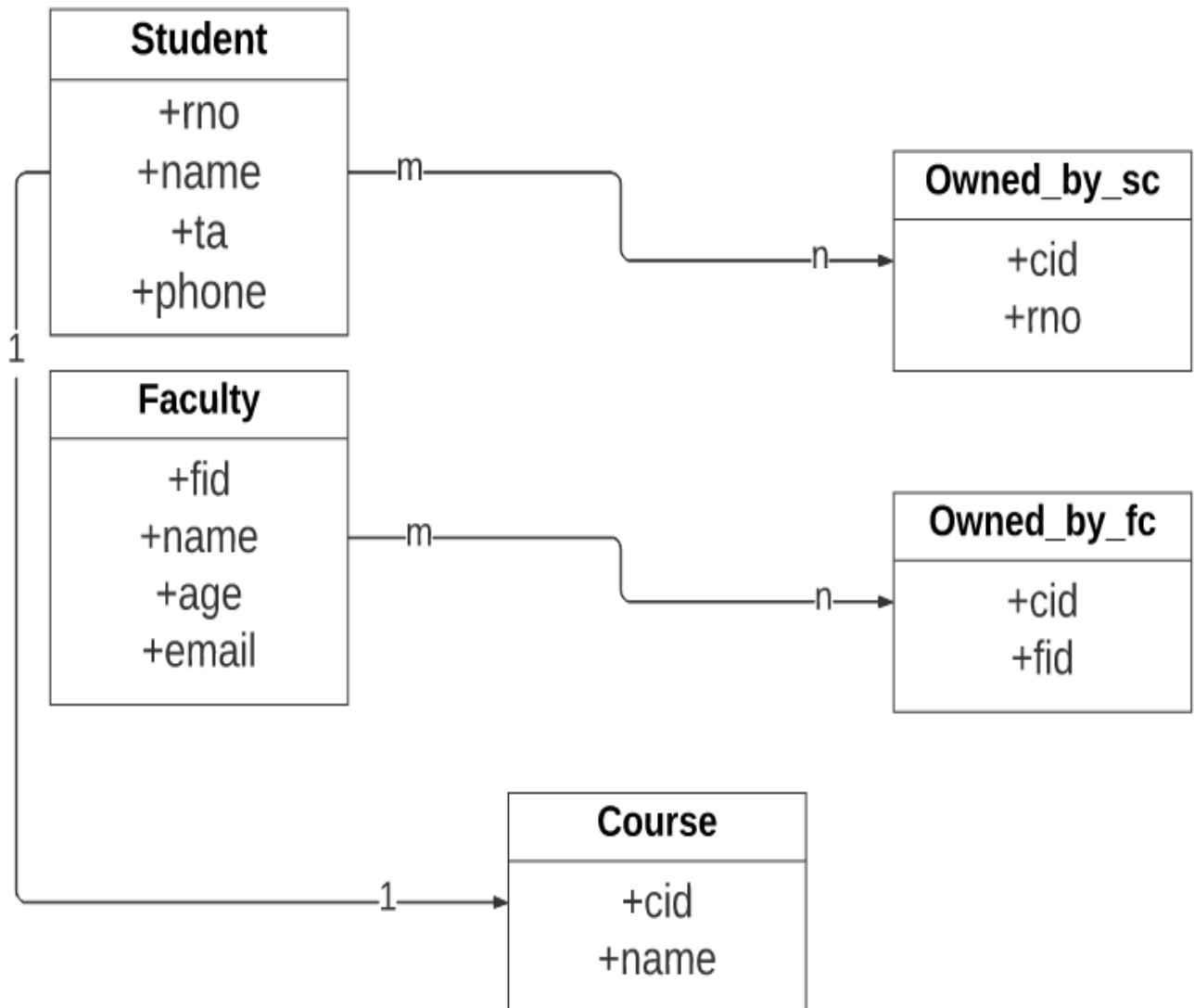
-Mukul Gupta

-IMT2020083

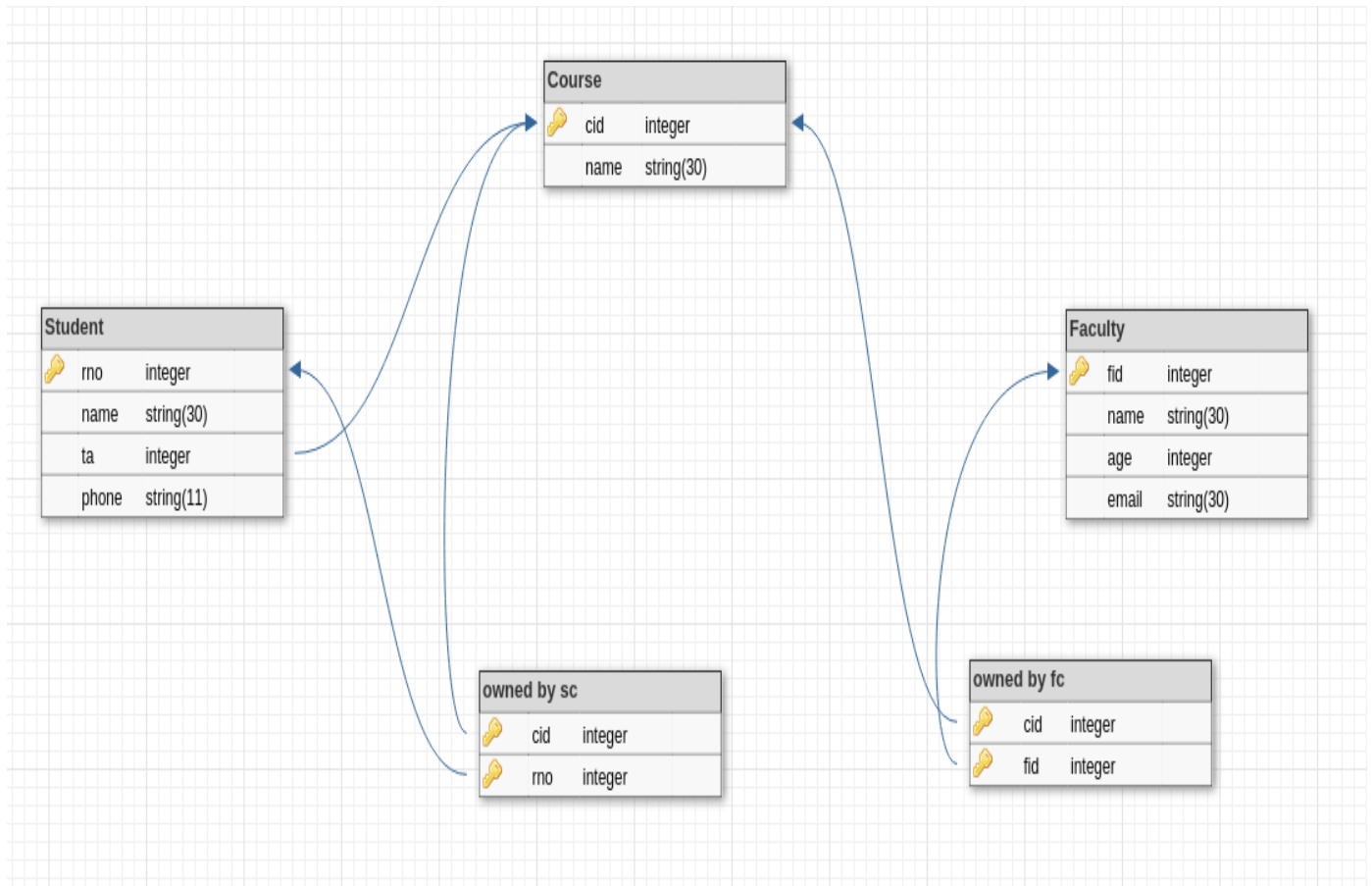
Use Case Diagram



UML Class Diagram



OR Mapping



Screenshots of Output

```

mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
1
Please Enter the name of faculty...
Srikanth
Please Enter the age of faculty...
48
Please Enter the email of faculty...
srikanth@iiitb.ac.in
Please enter the course that faculty teaches...
Press 1 to add the course that faculty teaches or 0 to exit..
1
Please enter the course id..
3
Press 1 to add the course that faculty teaches or 0 to exit..
0
Faculty Added Successfully

```

```

mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
2
Please Enter the name of student...
Manas Aggarwal
Enter the course id for which you want to assign this student as a TA...
Enter 0 if you don't want to assign this student as a TA..
1
Please Enter the phone number...
9354123456
Student should enroll in atleast 1 course ...
Press 1 to enroll or 0 to exit..
1
Please enter the course id..
5
Press 1 to enroll or 0 to exit..
1
Please enter the course id..
6
Press 1 to enroll or 0 to exit..
0
Student Added Successfully

```

```
mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
3
Enter the course you want to introduce...
Python
Please Enter the faculty id who will teach this course...
7
Course Added Successfully
```

```
mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
4
Enter the student roll number who you want to assigned as a TA...
2
Enter the course id ...
/* NOTE: A student can be a TA of atmost 1 course, if this student is already a TA and we assign this student as a TA for the new course then
the student will be a TA for the new course only */
5
Ta assigned successfully
```

```

mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
5
Please enter the faculty id...
Please enter 0 if you want to see all faculty information...
7
fid: 7
name: Srikanth
age: 48
email srikanth@iiitb.ac.in
Following courses are taught by the faculty ....
Maths
Python

```

```

mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
6
Enter the roll number you want to retrieve information ...
Press 0 if you want to retrieve all student information
7
fid: 7
name: Manas Aggarwal
phone no.: 9354123456
Following courses are taken by the student ....
Algorithm Design
History of ideas

```

```
mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
7
Enter the course id of course or enter 0 for retrieving all the courses
7
Course id: 7
Course name: Python
Faculty teaching Python course
Srikanth
```

```
mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
8
Enter the roll no. of student you want to update
3
Which of the following you want to update:
1. -> Name
2. -> Phone no.
3. -> Enroll/Drop the course
2
Enter the new phone number...
9812312345
```

```

mukul@mukul-HP-Laptop-14-ck2xxx:~/DBMS/project$ java JdbcDemo
Connecting to database...
Creating statement...
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit
9
Enter the roll no. of the student you want to remove...
5
Choose any of the following option for your query:
1. -> Add new Faculty
2. -> Add new Student
3. -> Add new Course
4. -> Assign Teaching Assistant
5. -> Retrieve Faculty information
6. -> Retrieve Student information
7. -> Retrieve Course information
8. -> Update Student information
9. -> Remove a Student from college
10. -> Drop the college database
0. -> Exit

```

Instructions

Run these on the terminal :-

- 1-> export CLASSPATH='/home/iiitb/Desktop/session 10/mysql-connector-2-java-8.0.18.jar:'
- 2-> javac JdbcDemo.java
- 3-> java JdbcDemo

Notes

- 1-> Owned_by_sc is linking student and course such that different students can take different courses.
- 2-> Owned_by_fc is linking faculty and course such that different faculty can teach different courses.
- 3-> ta attribute in Student table is foreign key referencing the course of which student is assigned as a TA.